

CLAIMS

- Das. Ab*
1. Process for preparing a crosslinked polyolefin foam, characterized in that it comprises an essentially unidirectional expansion.
  - 5 2. Process according to Claim 1, characterized in that it comprises the expansion of a product having substantially the shape of a sheet, the expansion being only in its thickness.
  3. Process according to Claim 2, characterized in that it is carried out continuously.
  - 10 4. Process according to one of Claims 1 to 3, characterized in that the unidirectional expansion is carried out by making a support adhere beforehand to one or both faces of the intermediate product to be expanded, these being perpendicular to the direction of the expansion.
  - 15 5. Process according to Claim 4, characterized in that the adhesion to the support is promoted by a prior corona discharge operation.
  6. Process according to one of Claims 1 to 3, characterized in that the unidirectional expansion is carried out by surface-crosslinking beforehand one or both faces of the intermediate product to be expanded, these being perpendicular to the direction of the expansion.
  - 20 7. Process according to one of Claims 1 to 6, characterized in that the foam is obtained from a composition comprising at least 20% by weight of a polyethylene or of an essentially linear ethylene copolymer of density of between 0.80 and 0.96 g/cm<sup>3</sup>.
  - 25 8. Process according to Claim 7, characterized in that the polyethylene or the ethylene copolymer is obtained by metallocene catalysis and has a density of at most 0.92 g/cm<sup>3</sup>.
  - 30 9. Compliant crosslinked polyolefin foam obtained by implementing the process according to one of Claims 1 to 8.
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